We claim:

1.   An image capturing device, comprising:

an electronic image sensor;

a memory including a frame buffer storing at least one digital image frame;

and

a processor, said processor communicating with said electronic image sensor

and said memory, said processor conducting an image capture of a digital image

frame into said frame buffer and extracting predetermined events in said digital

image frame by comparing said digital image frame with a stored quiescent image

frame.

2.   The device of claim 1, wherein said frame buffer comprises a circular

frame buffer.

3.   The device of claim 1, wherein said digital image frame is discarded

after said one or more events are extracted.

4.   The device of claim 1, said memory further including an event storage

that stores one or more events extracted from one or more digital image frames.

5.   The device of claim 1, said memory further including:

an image processing algorithm that optically identifies objects in said digital image frame; and

an object-to-event mapping table including a set of defined objects and a corresponding set of defined events, with an entry of said object-to-event mapping table mapping a particular object to a particular event;

wherein said processor uses said image processing algorithm to optically identify one or more objects in said digital image frame and uses said object-to-event mapping table to extract one or more events corresponding to said one or more objects.

6.   The device of claim 5, wherein said image processing algorithm further includes a library of predetermined objects, with each object in said library of predetermined objects representing a predetermined event.

7.   The device of claim 1, wherein said processor compares said digital image frame to said quiescent frame and detects an event if said digital image frame is substantially different than said quiescent frame.

8.   An event monitoring method, comprising the steps of:

capturing a digital image frame at a predetermined capture rate;

performing image analysis on said digital image frame;

extracting predetermined events in said digital image frame according to

event data stored in a memory; and

recording the occurrence of an extracted event.

9.   The method of claim 8, wherein said digital image frame is discarded

after said event is extracted.

10.   The method of claim 8, further comprising the step of storing said

event.

11.   The method of claim 8, wherein the capturing, performing, and

extracting steps are iteratively performed, and further comprising the step of waiting

a predetermined time period after the extracting step before performing a

subsequent capturing step.

12.   The method of claim 8, with the step of performing image analysis

further comprising optically identifying an object in said digital image frame.

13.   The method of claim 8, with the step of performing image analysis

further comprising optically identifying an object in said digital image frame and with

the step of extracting an event further comprising mapping said object to an event of

a set of defined events.

14.   The method of claim 8, wherein said processor uses an image processing algorithm to detect one or more objects in a digital image frame and uses an object-to-event mapping table to extract one or more events corresponding to said one or more objects.

15.   The method of claim 8, with the step of performing image analysis further comprising the step of comparing said digital image frame to a library of predetermined objects, with each object in said library of predetermined objects representing a predetermined event.

16. An event monitoring method, comprising the steps of:

capturing a quiescent frame at a beginning of an event monitoring session;

capturing a digital image frame;

comparing said digital image frame to said quiescent frame;

determining if said digital image frame is substantially different from said

quiescent frame; and

if said image frame is substantially different from said quiescent frame,

identifying an event by comparing said difference with a stored plurality of predefined

events.

17. The method of claim 16, wherein said digital image frame is discarded

after said event is extracted.

18. The method of claim 16, further comprising the step of storing said

event.

19. The method of claim 16, wherein the steps of capturing a digital image

frame, comparing, and detecting are iteratively performed, and further comprising the

step of waiting a predetermined time period after the detecting step before

performing a subsequent capturing a digital image frame step.